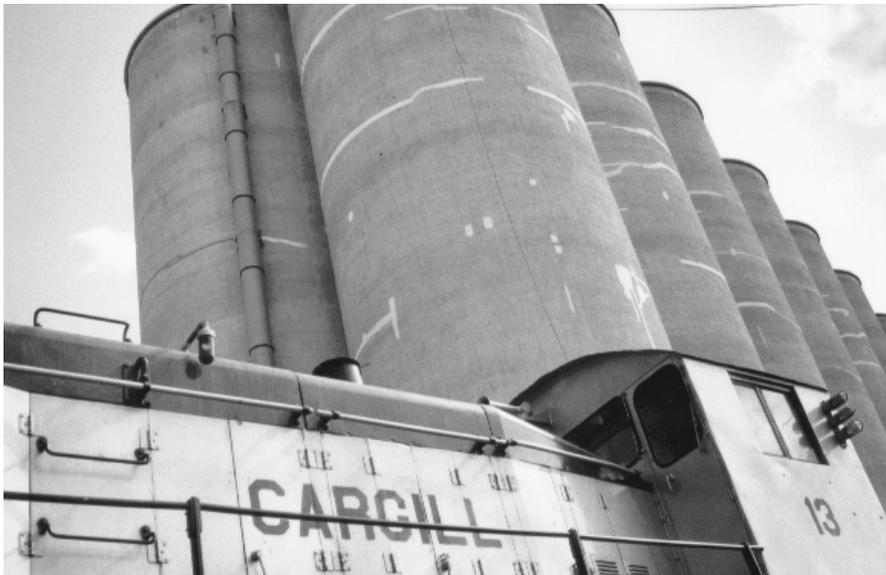


## Food & Marketing



Courtesy of Cargill Incorporated

# Cargill's Acquisition of Continental Grain: Anatomy of a Merger

An agreement in October 1998 to combine two of the nation's largest grain trading businesses appeared to many observers to illustrate a disturbing trend: increasing concentration in agribusiness leading to fewer marketing choices and lower prices for farmers. U.S. antitrust laws prohibit mergers that are likely to substantially lessen competition in an industry, and in the case of the proposed acquisition of Continental Grain's commodity marketing operations by Cargill, Inc., the Antitrust Division of the U.S. Department of Justice decided a review was warranted. Such a review can result in halting or allowing a merger, or in attaching certain conditions before merger is allowed. An overview of the economic issues in the case may be helpful in understanding concerns about the merger and the outcome of the Department's review.

### *The Grain Marketing Business*

Grain traders such as Cargill and Continental operate extensive, independent grain distribution networks that move grain from farms to domestic processors and foreign markets. The first stage of the system is usually a *country elevator*,

which offloads truck deliveries of grain from farmers, then samples, grades, and stores the grain. Country elevators may also provide drying and conditioning services and may offer a variety of transport and payment terms to their suppliers. Cargill operates an extensive network of country elevators, nearly 140; Continental owns only 16.

Country elevators, especially those in wheat regions, increasingly ship grain directly to ports, often using large shuttle trains. But they also ship by truck or rail to processors, feedlots, and to larger river and rail-terminal elevators.

*River elevators* usually ship grain by barge to port elevators, although their grain may also move to processors. *Rail-terminal elevators* ship to processors and port elevators in large shipments of 3 to 100 rail cars. River- and rail-terminal elevators receive grain both from country elevators and directly from farmers, and may provide drying and conditioning services as well as a variety of transport and payment terms. Both Cargill and Continental operate extensive networks of these elevators—Cargill owns 30 river

elevators and 63 rail terminals, while Continental owns 27 river elevators and 14 rail terminals.

All elevators may ship to domestic buyers—typically feedlots or processors. Grain bound for export usually moves through a network of *port elevators*, where it is transferred to oceangoing vessels. Port elevators sometimes buy directly from local producers, but more often they purchase grain from river, rail-terminal, and country elevators. Port elevators usually combine grains of different grades, protein levels, and other characteristics to meet buyer specifications, and they may also clean, dry, or condition the grain to meet those specifications. Cargill operates 16 port elevators, while Continental operates 6.

Cargill is the largest and Continental the third-largest U.S. grain exporter; together they account for 40 percent of all U.S. grain exports. The two firms operate large overseas networks of elevators and trading offices, through which the companies attempt to arbitrage differences in grain prices, buying grain at times and locations where prices are low, and selling at times and locations where prices, net of transport and storage costs, are high.

### *Key Considerations In the Merger Investigation*

There are two parties in this merger transaction, and thus two questions: why would Continental sell and why would Cargill buy? In general, Continental's grain trading business must appear more profitable to Cargill, if run by Cargill, than to Continental. Continental's expanding operations in livestock feeding and in financial services were requiring increasing amounts of managerial attention and investment funds within Continental, making it more difficult to focus attention effectively on grain trading.

Cargill, in contrast, hopes to reduce Continental's costs by operating the combined businesses more efficiently. To reach those efficiencies, Cargill proposes closing some duplicative facilities and reducing Continental's headquarters staff. In principle, operating costs could also be reduced. Some elevators could be closed

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### Four Firms Accounted for a Large Share of U.S. Grain Exports in 1998

	Corn	Wheat	Soybeans
	Percent of exports		
All port regions	70	47	62
New Orleans	75	72	71
Texas Gulf	80	79	100
Atlantic Coast	100	100	100
Great Lakes	86	81	67
Pacific Northwest	100	86	100

Estimated shares based on USDA export inspections data.

Source: Office of the Chief Economist, USDA, statement before the U.S. Senate Committee on Agriculture, Nutrition, and Forestry, January 1999.

Economic Research Service, USDA

on a seasonal basis, allowing open facilities to run closer to full capacity. With multiple facilities at ports, an exporter could assign different facilities to specific grain cleaning and loading tasks, thereby perhaps operating more efficiently. Finally, with larger volumes flowing to ports, the exporter might be able to realize greater scale economies in transporting grain to ports.

But another advantage of the merger is at the heart of the antitrust investigation. Cargill's acquisition of Continental grain operations has the potential to make the combined businesses more profitable by removing a competitor in the grain trade, lowering costs through reduced grain acquisition prices. If the merger does lead to reduced competition, it would also make Continental worth more to Cargill than to a buyer for whom Continental was not a competitor (e.g., in a management buyout or acquisition by a firm not already in grain trading).

The government must decide whether the merger is likely to reduce competition, whether the claimed efficiencies are likely to lead to cost savings that offset the effects of increased market power, and whether the efficiencies can be realized only by the merger. Operating cost efficiencies frequently can be achieved through other contractual means. For example, if there are scale economies in transportation, a firm could reach agreements with barge firms and other independent grain traders to combine port-bound grain movements into shipments large enough to realize transportation scale economies.

Two agencies, the Federal Trade Commission and the Antitrust Division of the Department of Justice, share responsibility for antitrust enforcement. In the Cargill/Continental case, the Antitrust Division took on the investigation because of its previous experience reviewing mergers in transportation and distribution industries.

The Department's investigation focused on three issues. First, would the merger lead to an increase in grain prices paid by Cargill's buyers, such as feedlots, food processors, and international clients? Second, would the merger lead to reduction in grain prices paid to sellers, such as independent country elevators, and ultimately farmers? Third, because the merger would lead to a reduction of independently owned elevators on the Illinois River, which provide authorized delivery capacity for the settlement of Chicago Board of Trade futures contracts, would the merger make it more likely that futures market prices could be manipulated by exporters?

The first issue was disposed of quickly. Because grain is traded in worldwide markets with many players, it is unlikely that Cargill's acquisition of Continental would allow it to increase world grain prices. Should prices be raised by one supplier, the buyers, foreign and domestic, have many alternative suppliers of grain. Consequently, the investigation emphasized the latter two issues, the increased possibilities for futures market manipulation and, most important, the impact of concentration in the market for purchasing grain from farmers.

### Could the Merger Diminish Competition in Grain Buying?

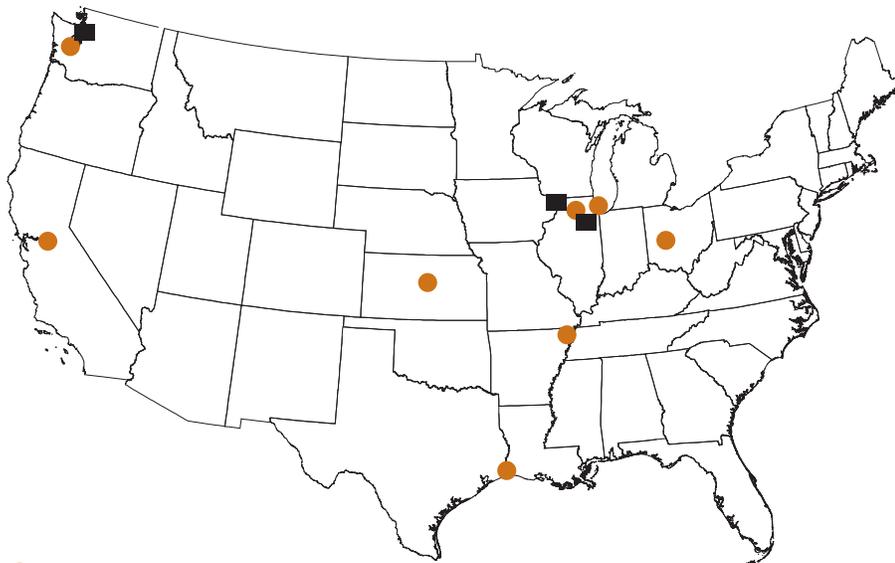
The merger would noticeably increase concentration in port elevator facilities for corn and soybean exports. To make this determination, the Department of Justice relied on USDA export inspections data. Because the data were not designed for use in the analysis of concentration, they are not ideal. For example, they may miss some intra-company shipments. They also may not always capture grain ownership accurately, if an exporter has a marketing agreement to handle grain on behalf of another exporter. But while approximate, the data nevertheless were accurate enough to identify merger-induced changes in the number of major exporters at particular port regions and to measure the broad magnitude of changes in concentration.

Concentration in grain exports is already high; in 1998, four firms accounted for 70 percent of all U.S. corn exports and 62 percent of all soybean exports. Moreover concentration numbers are substantially higher in specific port regions—the four largest firms handled over 80 percent of export grain flows at important Texas Gulf and Pacific Northwest ports.

USDA inspection statistics also show that Continental and Cargill were the second- and third-largest exporters of corn, behind Archer Daniels Midland; with the merger, two firms would account for nearly two-thirds of all U.S. corn exports, and the concentration level of the top four would rise to 90 percent. The two firms were also the second- and fourth-largest soybean exporters, and with the merger, concentration among the top four firms would rise to almost 80 percent of all U.S. soybean exports.

These effects would be stronger in some locations and markets than in others. In particular, the merger would reduce the number of major competing exporters in Pacific Northwest and Texas Gulf ports to two, and in the small Central California export market to one. The merger's effects on concentration would be much smaller in export wheat markets, which have considerably more competing elevator operators than do corn or soybean markets. The effects would also be smaller for corn and

### Cargill-Continental Merger Agreement Requires Both Parties to Sell Several Grain Facilities



#### ● Continental

Stockton, CA; Beaumont, TX; Chicago, IL; Salina, KS; Lockport, IL; Caruthersville, MO; Troy, OH; Tacoma, WA.

#### ■ Cargill

East Dubuque, IL; Morris, IL; Seattle, WA.

Under the agreement, Cargill has the choice of selling its Seattle port elevator or declining to purchase Continental's Tacoma port elevator.

Economic Research Service, USDA

soybean shipments through Louisiana Gulf locations; while Cargill and Continental were the second- and third-largest exporters there, four smaller firms also had a significant presence.

The important question for the Department of Justice on the issue of concentration was whether increases in port concentration mattered—that is, whether higher concentration would provide grain traders with the opportunity and the incentive to reduce grain prices paid to country elevators and ultimately to farmers. In order to decide whether changes in port concentration would affect prices, the Department would have to address three related issues.

First, suppose that the combined firm could reduce prices for export grain. Did producers have viable alternatives? In particular, could farmers respond to falling export prices by simply redirecting grain

to domestic buyers without affecting domestic prices?

Second, if the combined firm could reduce prices for export grain, and if farmers had no viable alternatives, then exporters would enjoy higher profits. But in many markets, higher profits will attract entry by new competitors, who would force prices back up as they competed to get grain supplies. In short, for concentrated exporters to be able to maintain lower prices on grain exports, they need some barriers to the entry of new export competitors. Did such barriers exist in the grain business?

Finally, suppose there were no possibility of new entry and no viable alternatives for farmers. Would small changes in the number of competitors be likely to affect competition and prices where there are few competitors to start with? In other words, should we expect prices to fall when the

number of buyers falls from four to three? From three to two? From two to one?

On the issue of viable alternatives for farmers, there appear at first glance to be many. Domestic corn and soybean consumption exceeds exports, so very large volumes already flow to feedlots, commercial feed mills, processors and the like. But the key question is whether export flows could be redirected to *expanded domestic use* without driving grain prices down. The actual domestic demand and supply relationships are such that redirection would likely lead to noticeable reductions in domestic grain prices. Moreover, the major grain traders are also major domestic grain processors and livestock feeders, who consequently stand to gain from any domestic price reduction induced by concentration in export markets.

Other alternatives appear equally unappealing. In principle, producers of export-bound grain could, when faced with a price reduction, *shift to other crops*. But existing cropping patterns suggest that this is not really a viable alternative in the face of modest cuts in grain prices. That is, Nebraska corn producers couldn't simply switch to cotton or lettuce production in response to small reductions in corn prices—climate and soil conditions would make it unfeasible. Producers could also in principle *reroute export flows* through other, less concentrated, ports, but the additional transport costs incurred in rerouting limit the effectiveness of that strategy. In short, the Department's analysis suggests that producers do not have sufficient alternatives to escape the effects of small cuts in grain prices brought about by increased port concentration.

Regarding entry barriers, what would prevent new rivals from entering and competing if traders could substantially increase profits by exploiting concentration in port facilities? Entry into the operation of country elevators is easy, and plenty of firms enter and exit that distribution stage each year. Good sites near rail lines and highways are widely available, and the facilities are neither expensive nor unusually difficult to operate.

But port elevators are a different story. These are very large and expensive struc-

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tures. Good sites, at deepwater loading spots without environmental risks but with room to construct barge- and rail-unloading facilities, are limited. Since there are only a few of the very large structures at any port, entry will itself sharply increase port capacity, leading to sharp near-term pressure on grain and elevator prices—in other words, entry is risky. In the last two decades, there have been very few instances of new construction of port elevator facilities, suggesting that barriers to the entry of port elevators are real.

The third issue to consider is the link between number of competitors and price. There are really no relevant direct studies of the effects of changes in the number of grain trading competitors on commodity prices. Several studies in related food and agricultural sectors, however, suggest that numbers matter—i.e., grain prices will fall if the number of competing buyers fall from three to two or from two to one. Based on evidence in those studies, on economic theory, on existing evidence on price relations in the grain trade, and on the alternatives available to farmers, Department of Justice investigators decided that prices probably would fall by small amounts as a result of the merger, in the range of 1-3-percent declines in cash prices received by grain producers. Because trading margins (differences between buying and selling prices) are narrow, even these small price changes imply large increases in grain trading profits. Because producer profit margins are also narrow, small price reductions would lead to noticeable declines in farmer incomes.

In sum, the investigation led the Department of Justice to conclude that although the merger was not likely to reduce competition in grain selling, it would likely reduce competition in grain buying. Moreover, on the question of whether the merger would raise the likelihood of manipulation of futures market prices, the Department was concerned that by concentrating operations along the Illinois River, the merger would leave about 80 percent of the authorized delivery capacity for Chicago Board of Trade corn and soybeans futures contracts in the hands of just two firms. The next decision was what to do about these concerns.

### *Conditions for Approval Of the Merger*

Current law sets a well-defined framework for an investigation. Parties to a merger must, under certain conditions, notify government antitrust agencies of the merger. An agency then has a specified amount of time to decide whether it will investigate the merger. If the agency does decide to investigate, it is allotted a specified amount of time after it obtains needed information from the parties to decide whether to file suit to stop the merger. If a suit goes forward, the agency usually asks a Federal judge for a temporary restraining order (TRO) against the merger.

Filing for a TRO sends a strong message to the firms that the agency is serious about trying to stop the merger. At this point, merging companies usually take one of three courses of action: they drop the merger, they prepare to go to court to fight the lawsuit, or they negotiate with the agency in an attempt to restructure the merger to alleviate the government's concerns. Negotiation is often in the interests of all parties, because going to court is expensive, time-consuming, and risky. In the Cargill-Continental merger, Cargill and the government opted for negotiation.

The Department of Justice had specific concerns about the merger's effects on concentration in export flows of corn and soybeans, and it was particularly concerned about increases in concentration in the Pacific Northwest, Central California, and Gulf ports. The anticipated effects appeared to be larger at Texas Gulf sites than at Louisiana Gulf ports, so the government was more concerned about Texas ports, as well as more sure of winning in court over these sites.

The Department was also concerned about the effects of the merger at several river ports and at some rail terminals, where competing river or rail-terminal elevators were some distance away and where price effects were therefore possible. Those included locations along the Illinois River from Chicago to Morris, Illinois, along the Mississippi River from Dubuque, Iowa to New Madrid, Missouri, and around rail terminals near Salina, Kansas and Troy, Ohio. The Illinois River points were also important for futures

markets, since the merger would have concentrated the delivery capacity for Chicago Board of Trade corn and soybean futures contracts.

The parties reached an agreement in July 1999. The Department of Justice announced that Cargill and Continental are required to divest themselves of 10 elevators in 7 states in order to proceed with the acquisition, and the firms agreed. Continental agreed to sell its port elevators at Beaumont, Texas, Stockton, California, and Chicago to independent firms. Cargill was given the choice of selling its Seattle port elevator or declining to purchase Continental's Tacoma port elevator. Cargill is allowed to retain the Continental and Cargill elevators at Louisiana Gulf sites.

Continental is also required to sell its river elevators at Lockport, Illinois and Caruthersville, Missouri, and its rail-terminal elevators at Troy, Ohio and Salina, Kansas. Cargill is required to sell river elevators at East Dubuque and Morris, Illinois, and to make one-third of the daily loading capacity at its Havana, Illinois river elevator available under contract to an independent grain company. The Illinois river elevators are all points at which Cargill and Continental elevators are adjacent to one another. In all instances of divestiture, the acquirer is subject to approval by the Department of Justice, and the divestitures are to take place within 5, or in some cases 6 months.

In the end, the merger will allow Cargill to expand its network for grain origination, particularly in the Plains and along the Mississippi River system. The divestitures will limit the merger's effects on concentration at key port and river locations, where it is likely that increased concentration would lead to small reductions in grain prices received by farmers. And for observers of the process, the review has served to illustrate the general principles that guide assessment of the effects of concentration in a market: the role of viable alternatives, the importance of entry barriers, and the question of how many competitors are necessary for competition. **AO**

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